XX. Account of a Spinning Limax, or Slug. By Mr. Thomas Hoy, of Gordon Castle, Associate of the Linnean Society.

## Read February 2, 1790.

T is well known that several insects, such as Spiders and the Caterpillars of many species of Moths, can convey themselves safely through the air, without wings, by means of filk lines or threads spun out of their own body: but it has not been observed (as far as I know) that any species, arranged under Linnæus's class of Vermes, is possessed of a similar power of felf-conveyance. An instance occurred to me, about a year ago, which leaves me no room to doubt but that some of them can convey themselves, at least downwards from a considerable height, in that manner. In going through a plantation of Scotch firs, I observed something hanging from a branch of one of them, at a little distance. As it seemed to be larger than any Caterpillar of the tribes Geometræ or Tortrices, that I was acquainted with, it attracted my particular notice. When I approached it, I found it to be a Snail, or rather Slug \*; and, at first, supposed that it had been shaken from the tree by wind, after having been entangled in a Spider's web, or among the filk lines of some Caterpillar. Upon observing it, however, more attentively, it was hanging by one line only, which was attached to its tail. This

line or thread, at the distance of one inch and a half from the animal, appeared to be as fine as those spun by the Aranea diadema, but nearer to its body it was thicker; and, at its junction to the tail, was broad and flat, exactly corresponding to the tail itself. The Slug was four feet below the branch from which it was fufpended, and at the distance of four feet and a half from the ground; to which it was approaching gradually at the rate of an inch in about three minutes, flower confiderably than its ordinary motion, either upon the ground, or even in ascending the trunk of a tree; not so slow, however, as one would expect, if it is considered that a Slug is not furnished, like the insects above mentioned, with a particular refervoir of glutinous liquid, from which the filk lines are spontaneously and almost instantaneously emitted; but that the line, by which it descends, is drawn from that slimy, glutinous exudation gradually secreted from its pores, and covering its whole body. It seemed to require a great degree of exertion in the animal to produce a continued supply of this liquid, and to make it flow towards its tail. For this end it alternately pushed out its head, and drew it back again below its shield; turned it as far as possible, first to one side and then to the other, as if thereby to press its sides, and so to promote the secretion. This motion of the head in a horizontal direction to one fide, made its whole body turn round; whereby the line by which it hung was necessarily twisted, and from being flat became round. Besides, it might perhaps tend to draw off the glutinous matter, and thus lengthen the line; which could fcarcely be effected merely by the weight of the Slug, although that was pretty considerable, being between sixteen and seventeen grains.

This Slug seemed to be of a species between the Limax agressis and flavus. Linn. Its specific character might be,

LIMAX (filans) cinereus margine flavo.

Perhaps the shade of the fir-trees, and the wet foggy weather when I observed it, may have rendered the Limax slavus of a paler colour; therefore I cannot pretend absolutely to introduce this, as a new species, to the acquaintance of the Linnean Society. But if the foregoing account exhibits a new instinct, or something that has not been heretofore observed in the animal occonomy, it may perhaps not be below the notice of a Society instituted for promoting the knowledge of natural history.

GEORGE SHAW.

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## ADDITIONAL NOTE,

By Dr. Shaw.

IT is confiderably more than ten years fince I had an opportunity of observing the phænomenon so accurately described by Mr. Hoy. Having never either before or fince observed a similar appearance, I was inclined to consider it as a circumstance merely accidental; but as it is thus confirmed by Mr. Hoy, there seems no reason to doubt that the animals of the genus Limax have a power of occasionally managing their glutinous excretion in such a manner as to serve the purpose of a thread in a direct descent.

The copy of my own Memorandum on this subject is as follows:

September 27, 1776.

"Sitting in an arbour about eight feet high, I was amused with a very uncommon spectacle, which I at first took for a Caterpillar B b

hanging by its thread, and reaching to within a foot of the ground, and therefore I did not much regard it; till on a nearer view I perceived it, to my great furprise, to be a small Slug, about three quarters of an inch in length. It hung by the extremity of its tail, and gradually descended till it almost touched the ground, when I shook it off with my singer. The thread seemed to issue from the body of the animal; yet I never observed a second or a former instance of any kind of Snail having the faculty of forming a thread."

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February 6, 1791.

GEORGE SHAW.

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